

## Setting Air Quality Standards in Ontario

Strong environmental quality standards, based on up-to-date scientific findings, form the foundation of the Ministry of the Environment's programs for protecting human health and safeguarding natural ecosystems.

We set two kinds of standards to protect air quality. Ambient air quality criteria (AAQC) are used to assess the general quality of the air, while point of impingement (POI) limits are used, primarily, to review applications for certificates of approval issued under the *Environmental Protection Act* and to control air emissions from individual sources of pollution.

The generic term "standard" refers to any of our guidelines, objectives, criteria or other kinds of limits placed on the presence or discharge of a contaminant into the natural environment. Other provincial standards address water pollutants, drinking water quality, the contamination of soils and sediments, the allowable levels of toxic chemicals in plants and animals and other environmental concerns.

Ontario's environmental standards are based on the best scientific information available and are set to protect the most sensitive receptors. Where there is uncertainty regarding the risk posed by a contaminant, the standards-setting process exercises caution in favour of stronger environmental protection.

### A new process for setting air standards

In 1996, the Ministry of the Environment released its standards-setting plan for public comment. The plan described the types of

standards used by the ministry, provided an overview of the standards-setting process and listed the priorities for developing new or revised standards. The plan was posted on the *Environmental Bill of Rights* (EBR) electronic registry on October 10, 1996 for a 60-day comment period and was widely distributed to interested groups and individuals.

Since the release of the plan, we have worked extensively with business representatives and public interest groups to design a process for developing air standards that is more open and accessible. The generic process has been modified to allow for formal consultation and input throughout. The setting of standards for air now follows a multi-step process which incorporates the key elements of priority setting, risk assessment, risk management and public consultation. This ensures that the full range of scientific issues and perspectives are considered in setting any new air standard.

Following the initial priority-setting stage, risk assessment and risk management information relevant to establishing a standard for a particular compound is documented in an information draft and made available for review through the EBR Registry. This provides affected groups and individuals, as well as the public, with the opportunity to provide any additional information they feel should be considered by the ministry in setting the air quality standard.

Setting a point of impingement standard is a risk management policy decision which integrates information about the potential for adverse effects with considerations of economic cost and technical feasibility. The adoption of formal risk management in the

The ministry has posted its revised and updated procedures for setting provincial air standards to the *Environmental Bill of Rights* registry for public comment. New standards for 70 high priority air pollutants are currently under development, while the limits for 75 lower priority air standards are in the process of being reaffirmed at their current values.



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process for setting air standards provides for greater flexibility, fairness, economic efficiency and effectiveness in achieving strong environmental protection goals.

### **Progress to date: acting on priorities**

Many of Ontario's air standards were established more than 20 years ago. Since that time, the science of risk assessment has advanced significantly. Accordingly, we have launched a process to review and update its existing air quality standards to ensure that they are current and protective of human and ecosystem health.

Since 1996, we have undertaken an evaluation of each of our air standards and, based on that evaluation, have assigned each standard to one of two priority groups for future development. Substances placed in Group 1 are considered high priority candidates for revision due to their toxicity, their presence and persistence in the environment, the quantities released or the potential for exposure to sensitive receptors. The Group 1 standards are currently being reviewed, using our new risk-based standards-setting process.

The report *Setting Environmental Quality Standards in Ontario* describes the progress made to date in reviewing the 70 high priority substances included in Group 1. We have completed work on risk assessments for nine of those standards, and information drafts have been published for 18 additional substances. Proposals for standards for these substances are expected to be posted on the EBR Registry later this fall. Several of the Group 1 standards are being developed in co-operation with other governments in Canada, either under the Canada-wide standards initiative of the Canadian Council of Ministers of the Environment or by a federal-provincial working group.

Meanwhile, all the current standards for Group 2 substances have been newly assessed against published guidelines, stan-

dards or exposure limits used by a number of other regulatory agencies, including the U.S. Environmental Protection Agency and the State of California. On the basis of that review, we are proposing that 75 of the Group 2 air standards be reaffirmed at their present values.

Details of the review process and rationales for each of the 75 air standards being reaffirmed, are available in a supplementary report, entitled *Reviewing Ontario's Air Standards*, which is available online with the EBR Registry posting.

### **Identifying new substances for air standards**

To ensure environmental protection, many jurisdictions have developed processes to screen new substances for their environmental impact. These assessments may be based on the available scientific literature, experience in other jurisdictions and work that has been done in the field of occupational health.

If an application for a certificate of approval makes reference to a substance for which we have no formal standard or guideline, we will review the available toxicological data and provide a site-specific assessment of the substance's predicted ground-level concentration.

### **Public consultation continues**

Due to the extensive changes made to Ontario's air standards-setting process, *Setting Environmental Quality Standards in Ontario* is being made available as a consultation draft. Interested groups and members of the public are invited to submit their comments, recommendations and any additional information they feel should be considered as we move forward in developing and updating Ontario's environmental quality standards.

For copies of *Setting Environmental Quality Standards in Ontario*, or for more information on our standards-setting programs, contact the:

Public Information  
Centre  
Ministry of the  
Environment  
135 St. Clair Ave. W.,  
main floor,  
Toronto, ON M4V 1P5

Tel: 1-800-565-4923  
(toll-free)  
or 416-325-4000  
(in Toronto)  
Internet: <http://www.ene.gov.on.ca>